

ABSTRACT OF THE DISCLOSURE

Medical devices are delineated that may include a needle, a catheter and a sheath. Such devices may be used to take a biopsy from a patient and/or inject fluid into a patient, particularly in the patient's heart tissue. One or more ports may be located between the ends of the needle to facilitate the desired medical procedure. A relative motion restrictor may be included to restrict relative movement during needle deployment between the catheter and the sheath. Additionally, a driver may be employed to deploy the needle with one or more of a predefined force, acceleration and velocity to ease needle penetration.

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